

AMENDMENTS TO THE CLAIMS

Please amend the claims to read as follows. The following listing will replace all prior versions of the claims pending in this Application.

1. (Currently Amended) A method for managing channel assignment in a wireless communication system having a plurality of cells, each cell having a predetermined frequency band for use in establishing communication connections, said method comprising the steps of:

dividing the predetermined frequency band into a plurality of frequency sub-bands within at least one of the plurality of cells;

implementing a multiple access scheme within each of said plurality of frequency sub-bands;

specifying a power range for each of said plurality of frequency sub-bands, said power range representing a range of signal powers that are to be supported by one of a plurality of channels within each of said plurality of frequency sub-bands, wherein at least two of said plurality of frequency sub-bands are assigned power ranges that are different from one another;

upon receipt of a first communication connection in the wireless communication system,
ascertaining a power level associated with a the first communication connection in the wireless communication system;

identifying at least one of said plurality of frequency sub-bands within the at least one cell that has a power range encompassing said power level; and

assigning a channel within said at least one of said plurality of frequency sub-bands that has said power range encompassing said power level to said first communication connection.

2. (Previously presented) The method claimed in claim 1, wherein:

said plurality of frequency sub-bands includes a first frequency sub-band having a plurality of code division multiple access (CDMA) channels.

3. (Previously presented) The method claimed in claim 1, wherein:
said plurality of frequency sub-bands includes a first frequency sub-band having a plurality of time division multiple access (TDMA) channels.

4. (Previously presented) The method claimed in claim 1, wherein:
said step of ascertaining a power level includes measuring a power level of a signal received via said first communication connection.

5. (Previously presented) The method claimed in claim 1, wherein:
said step of ascertaining a power level includes determining a transmit power level required to communicate with a remote entity via said first communication connection.

6. (Previously presented) The method claimed in claim 1, wherein:
said wireless communication system includes a satellite communication system, wherein said predetermined frequency bandwidth represents a bandwidth available for communication between a satellite and a plurality of terrestrial users.

7. (Previously presented) A system for providing wireless communication between a communication platform and a plurality of subscribers, said system comprising:

a predetermined frequency band for providing said wireless communication from a wireless cell, said predetermined frequency band being divided into a plurality of frequency sub-bands that are each capable of supporting a plurality of communication channels;

means for specifying a power range for each of said plurality of frequency sub-bands within the wireless cell, said power range representing a range of signal powers that are to be supported by one of a plurality of channels within each of said plurality of frequency sub-bands;

means for determining a power level associated with a wireless connection between said communication platform and one of the plurality of subscribers;

means for selecting at least one of said plurality of frequency sub-bands within the wireless cell that has a power range encompassing said power level determined by said means for determining; and

means for assigning a channel within said at least one of said plurality of frequency sub-bands within the wireless cell that has said power range encompassing said power level determined by said means for determining to said wireless connection for use in providing wireless communication between said communication platform and said one of said plurality of subscribers.

8. (Previously presented) The system claimed in claim 7, wherein:
said plurality of frequency sub-bands includes a first frequency sub-band having a plurality of code division multiple access (CDMA) channels.

9. (Previously presented) The system claimed in claim 7, wherein:
said plurality of frequency sub-bands includes a first frequency sub-band having a plurality of time division multiple access (TDMA) channels.

10. (Previously presented) The system claimed in claim 7, further comprising:
means for monitoring said wireless connection to determine whether a power condition has changed during said wireless connection; and
means for assigning a new channel within a different frequency sub-band to said wireless connection when said means for monitoring determines that said power condition has changed.

11 (cancelled)

12. (Currently amended) A method for providing multiple access communications between a first location and a second location, said method comprising the steps of:
providing a predetermined frequency band for a wireless cell for use in establishing communication connections between said first location and said second location;
segmenting said predetermined frequency band within the wireless cell into a plurality of frequency sub-bands;
providing a multiple access scheme within each of said plurality of frequency sub-bands;

specifying a power range for each of said plurality of frequency sub-bands, said power range representing a range of signal powers that are to be supported by one of a plurality of channels within each of said plurality of frequency sub-bands;

determining power levels of signals received; and

assigning limiting the signals to communication within each of the plurality of frequency sub-bands to signals having power ranges that encompass the a power level within said power range of the signal.

14. (Previously presented) The method claimed in claim 12, wherein:

said limiting step includes determining said power level associated with a first communication connection and selecting one of said plurality of frequency sub-bands from said plurality of frequency sub-bands for use by said first communication connection based on said power level.

15. (Previously presented) The method claimed in claim 14, wherein:

said limiting step includes assigning a CDMA channel within said one of said plurality of frequency sub-bands to said first communication connection.

16. (Previously presented) The method claimed in claim 12, wherein:

said step of segmenting said predetermined frequency band into a plurality of frequency sub-bands includes defining a plurality of receive frequency sub-bands.

17. (Previously presented) The method claimed in claim 12, wherein:

said step of segmenting said predetermined frequency band into a plurality of frequency sub-bands includes defining a plurality of transmit frequency sub-bands.

18 (cancelled)

19 (original) The method claimed in claim 12, wherein:

said first location includes a multi-channel communications satellite orbiting about a primary body.

20 (original) The method claimed in claim 19, wherein:

said second location includes a footprint region on said primary body associated with said multi-channel communications satellite.

21. (Currently Amended) A method for providing multiple access communications between a first location and a second location, said method comprising the steps of:

providing a predetermined frequency band for a wireless cell for use in establishing communication connections between said first location and said second location;

dividing said predetermined frequency band within the wireless cell into a plurality of independent communication channels using at least two different multiple access methods;

separating said plurality of independent communication channels into a plurality of channel groups;

specifying a power range for each of said plurality of channel groups, said power range representing a range of signal powers that are to be supported by one of a plurality of channels within each of said plurality of channel groups;

determining a power level of a signal received; and

assigning the signal to limiting communication within each one of the plurality of channel groups to signals having a power level within said power range that encompasses said power level.

22 (original) The method claimed in claim 21, wherein:

said at least two different multiple access methods includes frequency division multiple access (FDMA) and code division multiple access (CDMA).

23 (original) The method claimed in claim 21, wherein:

said at least two different multiple access methods includes frequency division multiple access (FDMA) and time division multiple access (TDMA).

24 (original) The method claimed in claim 21, wherein:
said at least two different multiple access methods includes time division
multiple access (TDMA) and code division multiple access (CDMA).

25 (original) The method claimed in claim 21, wherein:
said at least two different multiple access methods includes frequency division multiple
access (FDMA), time division multiple access (TDMA), and code division multiple access
(CDMA).

26 (cancelled)

27 (cancelled)